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2 Claims

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4 1. A gear mechanism, in particular for hand power
5 tools, having a driving gear wheel (12), seated in a manner
6 fixed against relative rotation on a drive shaft (11), and a
7 driven gear wheel (13), meshing with the driving gear wheel
8 and driving a driven shaft, characterized in that spring-
9 elastic damping elements (22) are located between the driven
10 gear wheel (13) and the driven shaft (14).

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12 2. The gear mechanism of claim 1, characterized in that
13 the driven gear wheel (13) is seated rotatably on the driven
14 shaft (14) and has pockets (21), offset from one another in
15 the circumferential direction, that are defined by radial
16 side walls (211); and that the damping elements (22) rest in
17 the pockets (22) with contact against the radial side walls
18 (211) and are retained on a slaving device (16) that is
19 joined to the driven shaft (14) in a manner fixed against
20 relative rotation.

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22 3. The gear mechanism of claim 2, characterized in that
23 the slaving device (16) is fixed axially nondisplaceably on
24 the driven shaft (14).

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26 4. The gear mechanism of claim 3, characterized in that
27 the driven gear wheel (13) is braced in the axial direction
28 on the one side on an annular shoulder (15) embodied on the
29 driven shaft (14) and on the other on the slaving device
30 (16).

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32 5. The gear mechanism of one of claims 2 through 4,
33 characterized in that the slaving device (16) has a ring
34 (17), seated on the driven shaft (14), and a number of radial

1 ribs (18) corresponding to the number of pockets (21) in the
2 driven gear wheel (13), of which ribs one protrudes into each
3 pocket (21); and that two or more damping elements (22),
4 resting on each side of the radial rib (18), are provided in
5 each pocket (21), of which damping elements each one is
6 braced on the radial rib (18) and on a radial side wall (211)
7 of the pocket (21).

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9 6. The gear mechanism of claim 5, characterized in that
10 the ring (17) of the slaving device (16) is pressed onto the
11 driven shaft (14).

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13 7. The gear mechanism of claim 5 or 6, characterized in
14 that the ring (15) of the slaving device (16) is joined in
15 force-locking fashion to the driven shaft (14).

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17 8. The gear mechanism of one of claims 3 through 7,
18 characterized in that the radial side walls (211) of the
19 pockets (21) have indentations in the region of contact with
20 the damping elements (22).

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22 9. The gear mechanism of one of claims 3 through 8,
23 characterized in that the radial ribs (18) of the slaving
24 device (16), at least in their region protruding into the
25 pockets (21), have a rectangular profile, with or without
26 concavities or convexities, or a wedge-shaped profile.

27
28 10. The gear mechanism of one of claims 1 through 9,
29 characterized by its embodiment as an angular gear, in which
30 the driven gear wheel (13) is embodied as a ring gear with
31 spur gearing (131), and the driving gear wheel (12) is
32 embodied as a conical pinion with pinion gearing (121).

Claims

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1. (original) A gear mechanism, in particular for hand power tools, having a driving gear wheel (12), seated in a manner fixed against relative rotation on a drive shaft (11), and a driven gear wheel (13), meshing with the driving gear wheel and driving a driven shaft, characterized in that spring- elastic damping elements (22) are located between the driven gear wheel (13) and the driven shaft (14).

2. (original) The gear mechanism of claim 1, characterized in that the driven gear wheel (13) is seated rotatably on the driven shaft (14) and has pockets (21), offset from one another in the circumferential direction, that are defined by radial side walls (211); and that the damping elements (22) rest in the pockets (22) with contact against the radial side walls (211) and are retained on a slaving device (16) that is joined to the driven shaft (14) in a manner fixed against relative rotation.

3. (original) The gear mechanism of claim 2, characterized in that the slaving device (16) is fixed axially nondisplaceably on the driven shaft (14).

4. (original) The gear mechanism of claim 3, characterized in that the driven gear wheel (13) is braced in the axial direction on the one side on an annular shoulder (15) embodied on the driven shaft (14) and on the other on the slaving device (16).

5. (currently amended) The gear mechanism of ~~one of claims 2 through 4~~ claim 2, characterized in that the slaving device (16) has a ring (17), seated on the driven shaft (14), and a number of radial ribs (18) corresponding to the number of pockets (21) in the driven gear wheel

(13), of which ribs one protrudes into each pocket (21); and that two or more damping elements (22), resting on each side of the radial rib (18), are provided in each pocket (21), of which damping elements each one is braced on the radial rib (18) and on a radial side wall (211) of the pocket (21).

6. (original) The gear mechanism of claim 5, characterized in that the ring (17) of the slaving device (16) is pressed onto the driven shaft (14).

7. (currently amended) The gear mechanism of claim 5 ~~or 6~~, characterized in that the ring (15) of the slaving device (16) is joined in force-locking fashion to the driven shaft (14).

8. (currently amended) The gear mechanism of ~~one of claims 3 through 7~~ claim 3, characterized in that the radial side walls (211) of the pockets (21) have indentations in the region of contact with the damping elements (22).

9. (currently amended) The gear mechanism of ~~one of claims 3 through 8~~ claim 3, characterized in that the radial ribs (18) of the slaving device (16), at least in their region protruding into the pockets (21), have a rectangular profile, with or without concavities or convexities, or a wedge-shaped profile.

10. (currently amended) The gear mechanism of ~~one of claims 1 through 9~~ claim 1, characterized by its embodiment as an angular gear, in which the driven gear wheel (13) is embodied as a ring gear with spur gearing (131), and the driving gear wheel (12) is embodied as a conical pinion with pinion gearing (121).